On-Site Rule Development Committee
Meeting
March 28, 2002

Facilitator Notes

Time	Agenda Item	Lead
10:00	Welcome	Maryanne Guichard
10:10	Agenda Review/ Introductions	Mary Campbell
10:30	TRC Issues - Overview	John Eliasson
11:00	OAC Recommendations	Dave Lenning
12:00	Lunch	
12:30	Identify and prioritize issues Develop timeline	
2:30	Wrap-up	Mary Campbell/ Eric Svaren
3:00	Adjourn	

ON SITE RULE DEVELOPMENT COMMITTEE
Facilitator NOTES–Meeting 2
March 28, 2002

CONSTRAINTS IDENTIFIED EARLY IN THE MEETING:

- Budget constraints limit time available for rule development
- OAC recommendations: 55 original recommendations, minus those not related to on-site rules, minus those related to LOSS (Large On-site Sewage Systems) = 14 remaining recommendations
- TRC identified and ranked a number of technical issues

EXPECTATIONS OF NEW MEMBERS

- Rule that is uniform, protects public health, makes sense, is applied consistently, involves people
- Protect the public health and monitor existing systems
- Rule consistent with other environmental laws and reg's
- Shorter process than last time – common sense and realistic

DECISIONS ADOPTED

- If a member of the RDC cannot support a proposal, s/he will propose an alternative within an hour of expressing opposition.
- The group may agree that an issue should be tabled to allow time for more research.

OPTIONS CONSIDERED FOR DEVELOPING LIST OF ISSUES AROUND WHICH THE GROUP WILL DEVELOP RECOMMENDATIONS:

1. Review rule line by line
2. Review rule section by section (3 votes)
3. Use OAC/TRC issues as a starting point (15 votes)
4. Use OAC/TRC and integrate with existing rule
1. Identify the other issues needing to be addressed – have people read the rule and bring it back
2. Use the timeline of site design, installation and maintenance to identify the issues (9 votes)

CONCERNS:

1. Line by line review takes too much time, is not focused on issues at hand
2. Starting from OAC recommendations means that people have to get caught up – some have not read everything.

OPTIONS CONSIDERED FOR DEVELOPING RECOMMENDATIONS:

1. Ask DOH TRC to develop a recommendation
2. Assign a small team to develop a recommendation and bring it back to the next meeting
3. Work on the issue as a whole group

4. Ask Kelly to develop a draft recommendation and bring it back to the group

CONSIDERATIONS:
All issues can be considered on a continuum, where each issue falls on each continuum may be different issue to issue:

DOH jurisdiction----------|----------Local Jurisdiction
Rules----------|----------Guidance
In rules/guidance----------|--------Other ways
DOH Standards----------Industry standard
East----------|----------West
Leave us alone----------|----------Regulate

ASSIGNMENTS:
- Read WAC and identify the issues to be addressed in the rule revision
- Send issues to Jane as you identify them – she will cycle them back to the group
- Read articles posted to web when email comes out about them
- Respond to Jane's lunch count message

CALENDAR:
- July 17 or 18 – to be determined
- Sept 19
- November 7

EVALUATION

+	Δ
Good facilitation Good lunch	Stop to get people on board Small font on ½ sheets People need to come on time People need to do their homework Microphones would be nice Need overview of what has happened

Technical Issues Identified & Ranked by the Technical Review Committee

Ranking No.	Topic	Issue (Short Description)	Reference
1 114 total pts	Treatment Standard 1& 2 applications	▪ Address the various ways the treatment standards are applied. ▪ Review appropriateness of existing parameters; e.g. the public health difference between 200 and 800 fecal coliform/100ml. ▪ Review other parameters and indicators of public health significance; e.g. nitrate. ▪ Disinfection	WAC Tables IV & VI
2 76 total pts	Hydraulic loading rates	▪ Rates need to account for factors such as soil structure and bulk density, wastewater strength, oxygen present at the infiltrative surface, wastewater application, and climatic differences. ▪ Credit for sidewall vs. bottom area.	WAC Table V
3 71 total pts	Organic Loading Design Standards	Current design standards only address hydraulic loading. Should, and by what approach, organic loading be addressed in system design?	None
4 67 total pts	Disposal component reductions	▪ Address how size reductions are applied. The limitations to these sizing reductions should apply to all technologies for which an absorption area is proposed. ▪ When allowing reduction in <u>installed</u> drainfield size, 100% primary and reserve <u>area</u> to be set aside needs to be in rule. ▪ There is an allowance for 50% reductions in installed drainfield size when using enhanced treatment. Should there be an allowance for additional reductions due to disposal component reduction allowances?	RS&G
5 59 total pts	Wastewater Quality/Strength/Content	▪ High Strength Wastewater needs to be defined. ▪ Numerical values defining residential wastewater strength would be helpful for determining whether a particular source is typical domestic strength of higher. ▪ A testing protocol needs to be developed and placed into rule. The EPA's Environmental Technology Verification testing program may be an option (or an example) for field verification testing program to provide high strength wastewater testing. ▪ System design standards are needed for high strength wastewater. ▪ Clarify the permitting of nonresidential waste streams and design requirements of nonresidential sources; e.g. dog kennels, restaurants, mini marts, etc.	WAC -11501(3)
6 52 total pts	Type 1-A Soil issues	▪ The WAC needs to better define the allowance to use 12" of Type 1A soils for final disposal after pretreatment to Treatment Standard 2. Type 1A soils requires pretreatment prior to final disposal into 12" of suitable soil. Type 1A is defined as a restrictive layer. Make clear vertical distance in 1A soils is not actually vert. sep'n. ▪ The treatment of sewage in soils is unrelated to gravel content, yet increased treatment is required in all cases of "excessive" gravel, even if there is 200 feet of basalt protecting drinking water source.	WAC Table IV
7 48 total pts	Lot size (minimum land area)	▪ Establish lot size based on land area needed for adequately treating and dispersing wastewater. ▪ Make calculation simpler. ▪ Clarify whether peak flows or average daily flows are used in the calculation. ▪ Discuss whether design concepts (i.e. equalization) can be used to reduce min. land area required. ▪ Method 2: Clarify that min. lot size is 12,500 ft^2 without inclusion of roadway area. ▪ Should the min. lot size be different for Type 1A soils? ▪ Consistency with GMA requirements ▪ Conditions where lot size restrictions can be reduced	WAC -20501

Technical Issues Identified & Ranked by the Technical Review Committee

Ranking No.	Topic	Issue (Short Description)	Reference
7 48 total pts	Daily Design Flows	▪ Current rule has daily "design" volume, but there is no information regarding average, peak, or typical flows. Design flows need to reflect potential flows from a facility. Large ft^2 homes often have rooms not identified as bedrooms but which could serve as bedrooms. Also, these homes are conducive to high water use. Soil absorption areas need to be able to accommodate the actual flows. ▪ Residential/non-residential ▪ Look at flow requirements for 2-bedroom homes	WAC -11501(1)(i)
9 46 total pts	Table IV soil depth issues	▪ Establish soil depth requirements based on the minimum needed for adequately treating and dispersing wastewater. ▪ Sort out treatment standard from distribution method requirements. ▪ TS2 can be substituted for Intermittent SF if all 3 parameters are being met; when and how is gravity distribution allowed? ▪ On sites that have >3 feet of suitable soil but must meet TS2 to satisfy some site limitation, excavation of the soil in order to place 2 feet of C-33 sand is not necessary if we assume that PD into 2 feet of suitable native soil meets TS2. ▪ Define sensitive sites/high public health risks other than soil type & vertical separation. ▪ Minimum trench depth requirements for conventional gravity and PD systems are not stated WAC. It only requires that the sidewall below the invert of the dist. pipe be in original soil. We typically assume 6", as in 6" of gravel beneath the invert. ▪ Deep trench installation standards are needed.	WAC – Table IV & 11501(2K)(iii)
10 41 total pts	Sand/Media specifications	▪ The RS&G for Intermittent Sand Filters allows two different sand specifications. The WAC needs to be updated to reflect this change. ▪ Allowance for the use of other approved media is needed, including gravel.	RS&Gs for Sand Based Systems
10 41 total pts	Performance-based criteria	Manufacturers would need to prove that a wastewater treatment system treats the effluent to within acceptable standards *on an on-going basis*. This approach would be in place of approving a technology via testing protocol in advance for use.	None
12 40 total pts	Failing system issues	Use of tracer dyes and numerical bacteriological standards for the identification of failing on-site sewage systems.	None
12 40 total pts	Linear loading rates	So that soil absorption components deliver no more than the receiving soil can transmit away from the site, maximum linear loading rates should be established based on the depth of soil, soil morphology, slope gradient.	Tyler & Kuns 2000. NOWRA Proceedings
14 38 total pts	LOSS Issues	▪ Need minimum requirements for hydrologic assessments. ▪ Loading rate (WAC allows sidewall infiltration in some cases). ▪ Explore use of Unified Soil Classification system. ▪ Min. distance between trenches (sidewall-sidewall vs. center-center) – Make consistent between WAC * LOSS Standards. ▪ Maximum slope (WAC: 1000-3500; LOSS STD: 30% maximum) < 1000 – 45% maximum. ▪ Discuss options for streamlining project review process (i.e. peer reviews, cert. that design meets or exceeds requirements, require that submittal includes completed project review checklist, etc.) ▪ UIC	WAC -08001 & LOSS Standards
15 36 total pts	Monitoring & sampling requirements for TS 1&2 systems	Clarify the requirements for alternative systems regarding monitoring, sampling, testing, and clarifying when alternative systems are used (when TS 1&2 are invoked due to site limitations).	WAC -04001(3)

Technical Issues Identified & Ranked by the Technical Review Committee

Ranking No.	Topic	Issue (Short Description)	Reference
16 35 total pts	Use of Beds	▪ Beds not currently allowed in 1A and 1B soils. Pretreatment to TS2 should allow the use of beds. ▪ Use of beds should be scaled to depth of receiving soil to limit the linear loading rates. ▪ Bed width requirements. ▪ Passive ventilation systems	WAC -11501(2)(g)
17 30 total pts	Horizontal setback requirements	▪ Horizontal separations based on the minimum needed for adequately treating and dispersing wastewater. Technical basis needed. ▪ Criteria to allow for setback reductions should be place in rule in lieu through waiver process.	WAC Table 1
18 25 total pts	Stormwater impact on OSS.	▪ Address potential impacts (setbacks) of on-site stormwater systems. ▪ Drywell setbacks requirements are not address in rule, although they may have an impact on the on-site system. ▪ Curtain drains	WAC Table 1
19 23 total pts	PD Issues	▪ Orifice Loading & 6 ft^2/orifice ▪ Dosing regimes ▪ Intent is to spread the effluent evenly and wet as much of the infiltrative surface as possible and still maintain unsaturated flow. Use of chambers of other means may allow wider orifice spacing and still accomplish the intent.	PD RS&G
20 20 total pts	"Table VI Repairs" issues	In a repair situation, what treatment level is required if VS is limited but the horizontal separation is greater than 100 feet?	WAC Table VI
21 18 total pts	Product testing protocols	▪ Product testing protocols need to be placed in rule. ▪ Resting requirements. Since proprietary products are occasionally modified should they be required to retest on a 7 yr. Cycle like NSF Standard No. 40 to verify product performance. ▪ Are other states using testing protocols that could be accepted in Washington State? ▪ Should disinfection products be tested to the same rigors and demands as BOD_5 and TSS to verify ability to meet the fecal coliform parameter of the treatment standard?	RS&G
21 18 total pts	Drainfield placement on disturbed soil	Address placement of disposal components in fill/disturbed soil material.	WAC – 11501(2K)(iii)
23 15 total pts	Nitrate Impact on groundwater	▪ Does maximum nitrate level from on-site systems need to be established in rule? ▪ Does a nitrate testing protocol need to be developed (and placed into rule) for review and permitting by local health jurisdictions.	None
24 11 total pts	Water reuse	▪ Water-conserving technologies (including greywater reuse) will assume increasing importance in years to come as populations grow and water resources shrink. ▪ Use of rainwater collection for toilet flushing. ▪ Create a waterless and water conserving technology forum.	None

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Ranking No.	Topic	Issue (Short Description)	Reference
24 11 total pts	Wastewater Tanks	▪ Septic tank standards are needed in rule. ▪ WAC does not require 2-compartment septic tanks. The intent was to address this issue in the Septic Tank Standards document, which the WAC required of DOH but it was not completed. Most LHDs operate as if 2-compartment STs are required, based on past versions of the WAC. ▪ Design and construction standards of all tanks ▪ Discuss minimum holding tank design elements, including calculations to demonstrate max. burial depth, buoyancy, loading scenarios, etc. ▪ Discuss allowance & criteria for holding tanks other than part-time nonresidential use.	WAC -11501(2)(d), -12501,& Holding Tank RS&G
26 11 total pts	Expansions	Clarify expansion requirements	WAC – 17501
27 8 total pts	Geotextiles	▪ Current code requires a geotextile be used between gravel & soil backfill, but does not give specifications. ▪ Should the specification be the same of all type of systems? ▪ Geomembrane specifications ▪ Application of geotextiles	WAC -11501(2)(K)(iv)
28 4 total pts	Soil log development	▪ Current code addresses soil logging methods & excavation safety to some degree. Is this sufficient and consistent with knowledge base of practitioners doing soil characteristic identification? ▪ Soil nomenclature ▪ Consistency with L&I requirements	WAC -11001
29 0 total pts	Outlet baffle screens	▪ Outlet baffle screen use is not addressed in rule. ▪ Are design requirements needed in rule?	None
29 0 total pts	Electrical Issues – L&I	▪ Consistent enforcement of residential & nonresidential on-site sewage system electrical installations ▪ Classification of pump chambers	PD RS&G
29 0 total pts	Accessory dwelling units (ADUs)	Current rule does not address ADUs. Questions exist regarding how ADUs impact density and system design.	WAC -11501 & 20501
29 0 total pts	Design Manual use	Current rule refers to the 1980 EPA design manual for all other design elements not addressed in the rule. Should a design reference be made and if so, which document(s) should be used?	WAC -11501(2)(L)

Questions regarding this list of technical issues may be addressed to the Technical Review Committee coordinator, Dave Lenning, at (360) 455-8880 or dlenning@prodigy.net.

OAC Recommendations: Rule Development Required for Implementation

Wastewater Management Program ***Office of Environmental Health & Safety***

The following table presents only those recommendations (of the full 55) that require rule development and revision to implement, <u>minus</u> those recommendations relating to Large On-Site Sewage Systems. *(LOSS recommendations will be addressed at a later date in Phase II of rule development, following the completion of Phase I.)*

Rec. Group	Rec. #	On-Site Advisory Committee Recommendations (Abbreviated Description)
1	7	***Explore Funding Options / Fees for Services*** – Explore program funding options to reduce future reliance on state general fund sources and provisory PSWQ AT funding, including developing fees to cover the true cost of these programs.
1	8	***Rules Vs. Guidance –*** Continue to use the elements of rule and guidance as appropriate, as provided by state and local laws, acknowledging that there is a need for both rule and guidance as appropriate.
1	9	***Initiate On-Site Sewage System Rule Revision Process*** – Initiate the rule review and revision process as soon as reasonably possible. This review must be broad in its scope and not limited to the rule-related recommendations of the On-Site Advisory Committee (OAC).
2	10	***Technology Transfer Vs. Review and Approval*** – Emphasize technology transfer (education/outreach / standards & guidance) and de-emphasize product and technology review/approval.
2	18	***O&M in Rule – LHJ Requirements*** – Provide more explicit guidance in rule to what is required of LHJs regarding O&M.
2	19	***O&M in Rule – Uniform Process of Enforcement*** – Develop a uniform process of enforcement to insure that O&M is conducted as prescribed by rule.
2	20	***O&M in Rule – Statewide Definition of Failure*** – Develop a detailed statewide definition for failure.
2	21	***Testing Standards in Rule*** – Place the standards and testing methodologies required to document product performance levels (e.g., NSF Standards) in rule so that testing methods are applied equally to all applicants. Cease regulating sewage treatment systems by standards established in guidelines.
2	22	***Sewage Dispersal / Disposal Components*** – Establish in rule the framework for on-site gravelless drainfield dispersal and/or disposal systems or components.
2	24	***Rename the Technical Review Committee*** – The name of the TRC should be changed from the Technical Review Committee to the Technical Advisory Committee to more accurately reflect its advisory role.
2	30	***Product Development Permit –*** Develop a rule-based framework to promote an in-state product development permit that would allow manufacturers to install and evaluate the function and performance of new products in the early stages of development. Upon completion of product development, the manufacture would subject the product to testing according to the rule established testing methods to verify product performance.
2	35	***Explore Raising Standards of Practice***—Explore ways to raise both the industry and consumer standards of practice, recognizing that the current system only establishes a baseline of practice.
2	36	***Annual Re-Certification*** - Explore annual re-certification, and issues related to periodic performance verification of products.
3	45	***Explore Options to Reduce Government Oversight During Product Development*** – Explore approaches that maintain appropriate levels of public health protection while reducing the level of governmental oversight during initial product development.
3	46	***Treatment System Oversight Period*** – Develop a rule-based regulatory framework for assuring that during the first two years that a new product or technology is being appropriately applied in Washington state.